REMARKS

Applicant confirms the election of Group I, claims 15-20. Claims 15-20 and the new claims 29-32 encompass, in the sense that they are drawn to, the elected invention.

Applicant traverses the requirement for restriction. The examiner asserts in support of the requirement for restriction that WO 03/018850 demonstrates that the claimed special technical feature (i.e. a fluxing agent comprising a hydroxide sludge containing a fluoride compound) does not define a contribution which each of the inventions, considered as a whole, makes over the prior art. Applicant respectfully disagrees with the examiner's analysis. Thus, WO 03/018850 does not refer even once to a flux or a fluxing agent and therefore does not demonstrate that a fluxing agent comprising a hydroxide sludge containing a fluoride compound does not define a contribution over the prior art.

Claims 15-19 stand rejected under 35 USC 103 over Eklund et al in view of Lintz. Claim 20 stands rejected under 35 USC 103 over Eklund et al in view of Lintz and further in view of Klingle.

The subject matter of this application, as defined in claim 15, is concerned with a method of producing a fluxing agent that can be used in production of steel. The flux makes the slag fluid, thus allowing any metals in the slag to separate easily. A raw material for the production of the fluxing agent is a hydroxide sludge resulting from neutralization of metal-contaminated pickling liquid from a pickling step for a steel. Thus, as described with reference to FIG. 1 of the drawings, acidic pickling liquids (1) are neutralized (2) and dewatered (6) to form a sludge, which is calcined (7). The hydroxide sludge contains at least one fluoride-containing compound and this compound is utilized in order to produce a fluxing agent.

As described in Eklund et al, two of the residues produced in connection with manufacture of steel are dusts containing metals and metal oxides and used pickling fluid from the pickling

process. In principle, the dusts may be returned directly to the steel smelting process, but the powdery form of the dusts makes it difficult to mix the dusts into the steel melt and consequently the dusts end up in the filters. The used pickling fluid is neutralized and dewatered and the resulting hydroxide sludge having a solids content of only 40-60 % by weight is deposited on the waste tip.

Eklund et al teaches that both the powdery residues and the hydroxide sludge can be solidified by mixing with an admixture containing a substance from Group 14 of the periodic system, particularly carbon and/or silicon, and the solidified product can then be mixed into the steel. The metals in the solidified product go down into the steel melt, carbon is given off as carbon dioxide and water as steam, and other materials are taken up in the slag. Liquid admixtures that have been tested in accordance with the disclosure of Eklund et al are water glass and molasses. Eklund et al also discloses that SiO_2 in solid form may be used.

Eklund et al is thus concerned with reducing loss of the valuable metal content in the residues, such as the hydroxide sludge, by returning the valuable metal content, such as nickel and chrome, to the steel manufacturing process. The fact that other materials, such as fluoride-containing components of the residues, are also returned to the steel manufacturing process is purely incidental and Eklund et al contains no suggestion that these materials are utilized, specifically as a fluxing agent, in the steel manufacturing process.

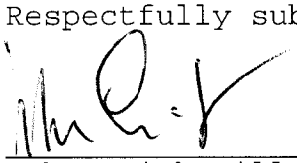
Lintz discloses a method of preparing relatively lower grades of fluorspar for use as a flux in the melting of steel. As disclosed by Lintz, the problem with the lower grade fluorspar resides in the extremely fine nature of the material, which is not readily melted into the metallurgical slags and, on the contrary, is blown out of the melting furnace. In order to utilize the lower grade fluorspar as a flux, the lower grade and fine fluorspar are mixed with moisture containing salt and the

mixture is molded to form briquets which are first dried and then sintered.

Lintz thus discloses how to convert lower grade and fine fluorspar into a form that is favorable for its use as flux material. Thus, in the process of Lintz, fluorspar is both the raw material and the end product and only the form is different.

The subject matter of claim 15 is not disclosed or suggested by Lintz and Eklund et al, whether taken singly or in combination. Eklund et al and Lintz do not disclose how to produce a fluxing agent, such as fluorspar, from hydroxide sludge. Therefore, claim 15 is patentable and it follows that the dependent claims 16-20 and 29-32 also are patentable.

Respectfully submitted,



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